

## CLAIMS

Thermoplastic compositions comprising:

40 to 97 parts of a thermoplastic polymer (M) forming a matrix,  
 chosen from polyamides, polyamide block copolymers, fluoro polymers,  
 polycarbonate, styrene resins, PMMA, thermoplastic polyurethanes (TPU),  
 copolymers containing polyester blocks and polyether blocks,  
 polycarbonate-polyester alloys, polyketones, PVC and ethylene-vinyl  
 alcohol copolymers (EVOH),

-60 to 3 parts of (B) comprising:

either an ethylene-alkyl (meth)acrylate copolymer (B1), the  
 alkyl having at least 5 carbon atoms, which copolymer (B1) carries a  
 functional group

or a blend of an ethylene-alkyl (meth)acrylate copolymer  
 (B2), the alkyl having at least 5 carbon atoms, which copolymer (B2)  
 does not carry a functional group, and of an impact modifier which  
 carries a functional group.

Compositions according to Claim 1, in which the functional  
 group of (B1) and of the impact modifier is chosen from carboxylic acids  
 and their derivatives, acid chlorides, isocyanates, oxazolines, epoxides,  
 amines and hydroxides.

Compositions according to either of the preceding claims, in  
 which the alkyl of the alkyl (meth)acrylate of (B1) and (B2) has from 5 to 20  
 carbon atoms and is preferably 2-ethylhexyl acrylate.

Compositions according to any one of the preceding claims,  
 in which the impact modifier is an ethylene/alkyl (meth)acrylate/maleic  
 anhydride copolymer.

Sub 2 A  
5 Compositions according to ~~any one of the preceding claims,~~  
~~in which advantageously~~ <sup>1 claim 1, wherein</sup> the proportion of (B) is from 5 to 35 parts per 95 to 65 parts of (M) and preferably 15 to 25 parts per 85 to 75 parts of (M).

A 5 6 Compositions according to ~~any one of the preceding claims,~~  
~~in which~~ <sup>1 claim 1</sup> (B) also comprises ethylene/alkyl (meth)acrylate copolymers.  
A wherein

Sub 3 A  
A 7 Compositions according to ~~any one of the preceding claims,~~  
~~in which~~ <sup>1 claim 1</sup> (B) also comprises a functionalized polymer (C1) or a difunctional  
A wherein  
10 reactive agent (C2) ~~so as to~~ form a crosslinked dispersed phase in the matrix (M).

A 8 Compositions according to Claim 7, ~~in which~~ <sup>1 wherein</sup> the crosslinking  
15 of the dispersed phase results from the reaction between an anhydride functional group and an epoxy functional group.

A 9 Compositions according to Claim 8, ~~in which~~ <sup>1 wherein</sup> part of one of the polymers carrying anhydride functional groups is partly replaced with a polymer carrying acid functional groups.

20 A 10 Compositions according to ~~any one of Claims 1 to 6, which~~  
A ~~comprise:~~ <sup>1 claim 1, comprising</sup>

- 40 to 97 parts of (M),
- 60 to 3 parts of a dispersed phase comprising:
  - 25 - 0 to 30 parts of a thermoplastic polymer (D) that differs from (M) and is not very compatible with (M) and
  - 3 to 30 parts of (B),
- (D) being completely or partly encapsulated in (B).

30 A 11 Compositions according to Claim 10, ~~in which (D) is chosen~~  
~~from polyamides, polyamide block copolymers, fluoro polymers,~~ <sup>1 wherein (D) is selected</sup>  
polycarbonate, styrene resins, PMMA, thermoplastic polyurethanes (TPU),  
copolymers containing polyester blocks and polyether blocks,

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polycarbonate/polyester alloys, polyketones, PVC and ethylene-vinyl alcohol copolymers (EVOH) and polyesters such as PET, PBT and PEN.

add A5

A 20  
B3

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